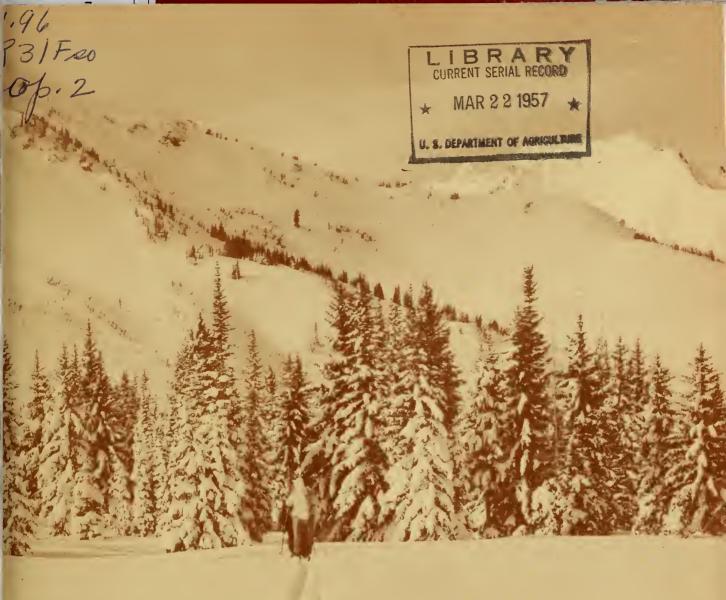
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FEDERAL-STATE COOPERATIVE
SNOW SURVEYS and WATER SUPPLY FORECASTS
for

OREGON

UNITED STATES DEPARTMENT of AGRICULTURE
SOIL CONSERVATION SERVICE
and
OREGON AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.

MAR.1, 1957

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY AND WATER SUPPLY FORECAST REPORTS:

Snow surveys in the west are conducted each year at more than 1200 snow courses. Basin and Province or State snow survey reports summarizing the results of the measurements and forecasts of seasonal runoff and water supply are issued by the Soil Conservation Service, U. S. Department of Agriculture and some of its cooperators; the Water Rights Branch of the British Columbia Department of Lands and Forests; and the California Division of Water Resources.

Copies of the various federal-state cooperative snow survey reports listed below may be secured by writing to:

Head, Water Supply Forecasting Section Soil Conservation Service 209 S. W. 5th Avenue Portland 4, Oregon

BASIN REPORTS:

Colorado, Rio Grande,	Issued monthly February through May by SCS and Colorado
and Platte-Arkansas	Experiment Station, Fort Collins, Colorado.*
River Basins	

Columbia River	Issued monthly January through May by Soil Conserva-
Basin	tion Service, Boise, Idaho.*

Upper	Missouri	Issued monthly	February through May	by SCS and Mont-
River	Basin	ana Agricultura	1 Experiment Station,	Bozeman Montana.*

West-Wide Water	Issued April 1 by Soil Conservation Service a	and Co-
Supply Outlook	Issued April 1 by Soil Conservation Service a operators, Portland, Oregon.	

STATE REPORTS:

Arizona	Issued semi-monthly January 15 through April 1 by SCS and Salt River Valley Water Users Association, Phoenix, Arizona.*
Nevada	Issued monthly February through April by SCS and Nevada State Engineer, Reno, Nevada.*

Washington Issued monthly February through May by SCS, Spokane,
Washington, and State Department of Conservation and
Development.*

Wyoming Issued monthly February through May by SCS, Casper, Wyoming, and State Engineer of Wyoming."

*Special reports are issued as needed.

The British Columbia reports are issued February 1 through June 1 and may be secured from Comptroller, Water Rights Branch, Department of Lands and Forests, Parliament Building, Victoria, B. C.

The California reports are issued monthly February 1 through May 1 and may be secured from Division of Water Resources, California Department of Public Works, Sacremento, California.

The annual water supply forecasts of the Weather Bureau are available in monthly bulletins published from January through May. These bulletins entitled, "Water Supply Forecasts for the Western United States" may be obtained from River Forecast Center, Weather Bureau, 712 Federal Office Building, Kansas City 6, Missouri.

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND WATER SUPPLY FORECASTS

FOR.

OREGON

Issued

March 8, 1957

Report Prepared

by

W. T. Frost, Snow Survey Supervisor and Manes Barton, Assistant Snow Survey Supervisor

Soil Conservation Service and Oregon Agricultural Experiment Station 209 S. W. 5th Avenue Portland 4, Oregon

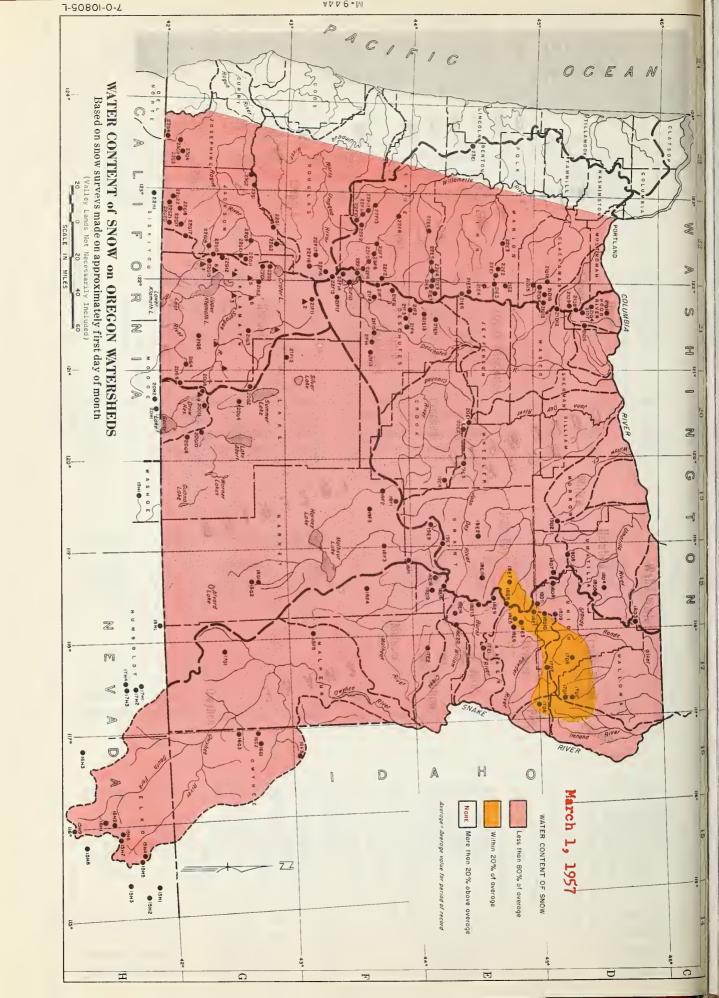
Issued by:

Robert L. Brown
Acting State Consevationist
Soil Conservation Service
Director
Oregon Ag

F. Earl Price Director Oregon Agricultural Experiment Station



N- 944B



PRELIMINARY WATER SUPPLY OUTLOOK FOR OREGON

March 1, 1957

Oregon's water supply outlook has not improved over that reported last month. With only one month remaining for any appreciable increase in the below normal snow-pack to occur, there is little doubt that many areas in Oregon dependent upon natural streamflow will experience water shortages. Above average reservoir storage and generally well-wetted mountain soils will moderate the expected below normal streamflow.

- SNOW-COVER: On a statewide basis, 1957 snow-cover is the lowest in the last ten years. The only area with normal to near-normal snow-cover is in the central part of northeastern Oregon (see map opposite). Elsewhere snow-cover ranges from 76 percent normal in the Powder River watershed to 25 percent normal in Goose Lake basin. Above 5000 feet snow-cover is 67 percent normal and below 5000 feet it is 49 percent normal. State-wide it averages 62 percent normal.
- SOIL MOISTURE: As reported by our snow survey crews, mountain soils beneath the snow are generally well-wetted. This condition is further verified by readings taken on the network of electrical soil moisture units; some of which have been in operation now for three years.
- RESERVOIRED WATER: Stored water in 21 important reservoirs is 137 percent of the 1938-52 average. Only McKay and Cold Springs reservoirs hold less than 100 percent of their average. With the exception of these two, all reservoirs are two-thirds to all full.
- PRECIPITATION: Winter precipitation (December through February) has been 79 percent of the 15 year average. Fall precipitation (September through November) was 77 percent normal.
- STREAMFION: Below average runoff for April-September is anticipated except for the Upper Klamath Lake basin where normal amounts are forecast. See pages 2-6 of this report for detailed streamflow forecasts. Streamflow during February was above normal, except for a few stations as is shown on page 19 of this report.

1 From preliminary data furnished by U. S. Weather Bureau, Portland, Oregon 2 From preliminary data furnished by U. S. Geological Survey, Portland, Oregon.

3.

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature during the forecast period will be near average. Appreciable deviations from normal of temperature and/or precipitation during the forecast period will correspondingly modify these forecasts.

these forecasts.	Sea	asonal St	reamflow in	n Thousand	s of Acre	Feet
Basin, Stream and Station	Forecast Runoff 1957	% 15-Yr. Avg.	Fore- cast Period		Runoff* 1954	15 - Yr. Average 1938-52
Columbia River nr. The Dalles**	97,900.0	101	Apr-Sept.	99,400.0	116986.0	97006.0
			COLUMBIA BA			
Owyhee River Basin Owyhee Reservoir net inflow	300.0	53	Ma r- July	258.8	137.5	569 . 5
Malheur River Basin Malheur River, nr. Drewsey	72.0	88	Apr-Sept.	36.7	गित्रभा	81.5
Malheur River, N.Fk., at Beulah ²	57.0	89	Apr-Sept.	35.1	45.9	63.9
Burnt River Basin Burnt River, nr. Hereford ³	27.0	65	Apr-Sept.	18.2	23.0	41. 8
Powder River Basin Powder River, nr. Baker	57. 0 55.0	90 90	Apr-Sept. Apr-July	32•9 32•1	3 9 . 9 38 . կ	63.4 61.6
Grande Ronde River Easin Immaha River at Imnaha	260.0	86	Apr-Sept.	255 •8	253•7	303.4
Wallowa River, E. Fk. nr. Joseph ⁴ Hurricane Creek,	, 10.1 8.1 36.0	89 88 8 0	Apr-Sept. Apr-July Apr-Sept.	10.3 8.3 40.9	11.3 8.9 43.1	11.3 9.2 45.1
nr. Joseph Lostine River, nr. Lostine	112.0	91	Apr-Sept.	103.8	118.5	123.5
Bear Creek, Nr. Wallowa	62.0	90	Apr-Sept.	62 .3	63.9	69•1
Catherine Creek,	70.0	98	Apr-Sept.	52.1	50.6	71.1
Grande Ronde River at La Grande	115.0	65	Apr-Sept.	181.4	122.3	176.9

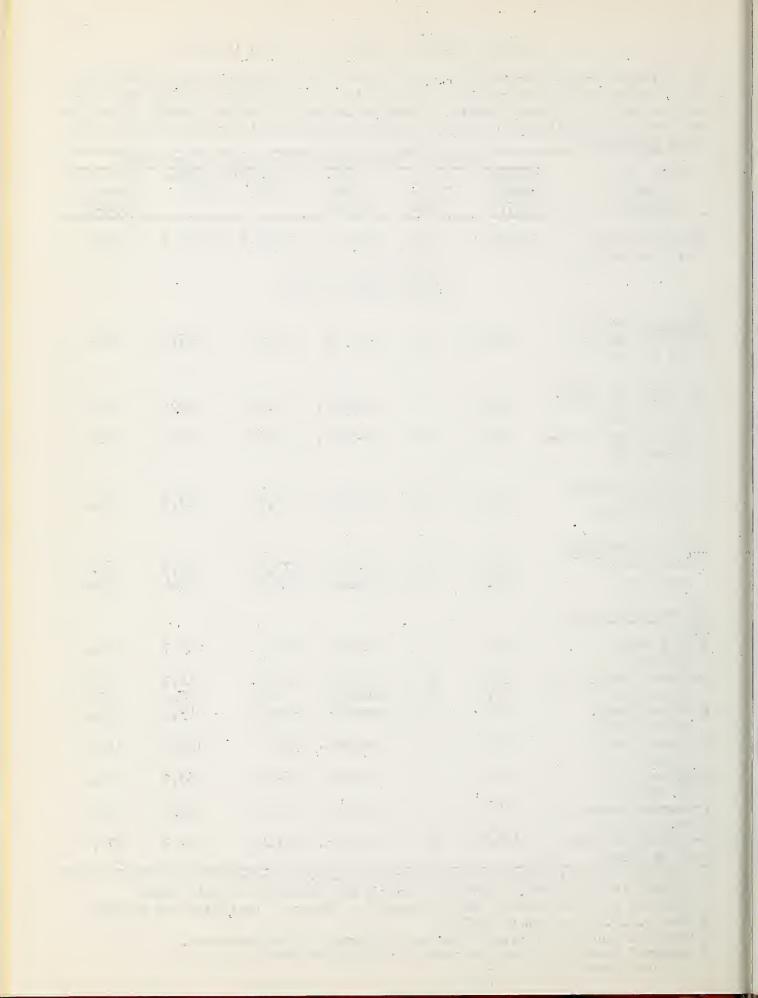
^{*} Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. Most 1956 records not available at this time.

**Forecast by Boise Office, Soil Conservation Service. Corrected for storage.

1 From U.S.B.R. records of inflow.

² Observed flow plus change in storage in Agency Valley Reservoir.

³ Observed flow plus change in storage in Unity Reservoir.
4 Includes power plant tailrace.



Streamflow Forecasts	- March 1	, 1957 (C	ont'd.)			
	S	easonal S	treamflow i		ds of Acre	Feet
Basin, Stream	Forecast	%	Fore-	Measured	Runoff*	15- Yr.
and	Runoff	15-Yr.	cast	3.9 5 5	1954	Average
Station	1957	Avg.	Period			1938-52
50001011		****	101100	and the second s		
		LOWER COL	UMBIA BASIN	ſ		
Umatilla River Basin						
Umatilla River,	76.0	88	Apr-Sept.	106.6	72.6	86,8
nr. Gibbon	444			•		
Umatilla River,	151.0	90	Apr-Sept.	215.2	117.7	167.4
at Pendleton	140.0	91	Apr-July	210.4	111.5	154.5
	18.0	65		44.3	17.0	27.8
McKay Creek			Apr-Sept.		16.9	27.6
nr. Pilot Rock	17.7	64	Apr-July	44.3	10.29	2100
TT TT						
Walla Walla River						
Basin					40 -	
Walla Walla R., So.	54.0	77	Apr-Sept.	71.3	68.7	70.5
Fk., nr. Milton	45.0	78	Apr-July	58 . 7	54.6	57.8
**			•			
John Day River Basin						
Stawberry Cr.	6.5	78	Apr-Sept.	7•2	7.7	8.3
nr. Prairie City		•				, ,
John Day River	40.0	79	Apr-Sept.	37.6	42.5	50.4
-	36.0		Apr-July	33.4	37.5	45.3
at Prairie City		79				
John Day River,	97.0	80	Apr-Sept.	90.9	92.8	121.7
Mid. Fk. at Ritter		0=		- / -/ -		01.0.1
John Day River,	202.0	81	Apr-Sept.	165.2	229.7	248.4
N.Fk.nr Dale				*		
Crooked River Basin						,
Crooked R.	52.0	42	Apr-Sept.	77.8	70 _° 5	124.2d
nr. Post			•			
Ochoco Res., net	11.2	40	Apr-Sept.	13.2	18.6	28.0
inflow ⁵		•	1192 2000	-54-		
TITI TOW						
Deschutes River Basi	n					
Crescent Creek	" 18.5	87	Apr-Sept.	26.5	43.0	21.2
crescent creek	10.7	01	wht.⇔peh 0.	20.0	45.0	CT 9C
at Crescent Lake	(2.0	70	A . C. +	60.7	701 1	90 6
Little Deschutes R.,		70	Apr-Sept.	69.1	134.4	89.6
nr. Lapine	55 . 0	70	Apr-July	61.0	117.8	79.1
Odell Cr.,	28.0	96	Apr-Sept.	28,7	37•5	29 .2
nr. Crescent						
Deschutes River,	54.0	89	Apr-Sept.	45.8	80.8	60.4
below Snow Creek						
Crane Prairie Res.	106.0	88	Apr-Sept.	94.1	149.9	120.6
inflow ⁷	, -		1 1			

^{*} Discharge data from preliminary records of U. S. Geological Survey and

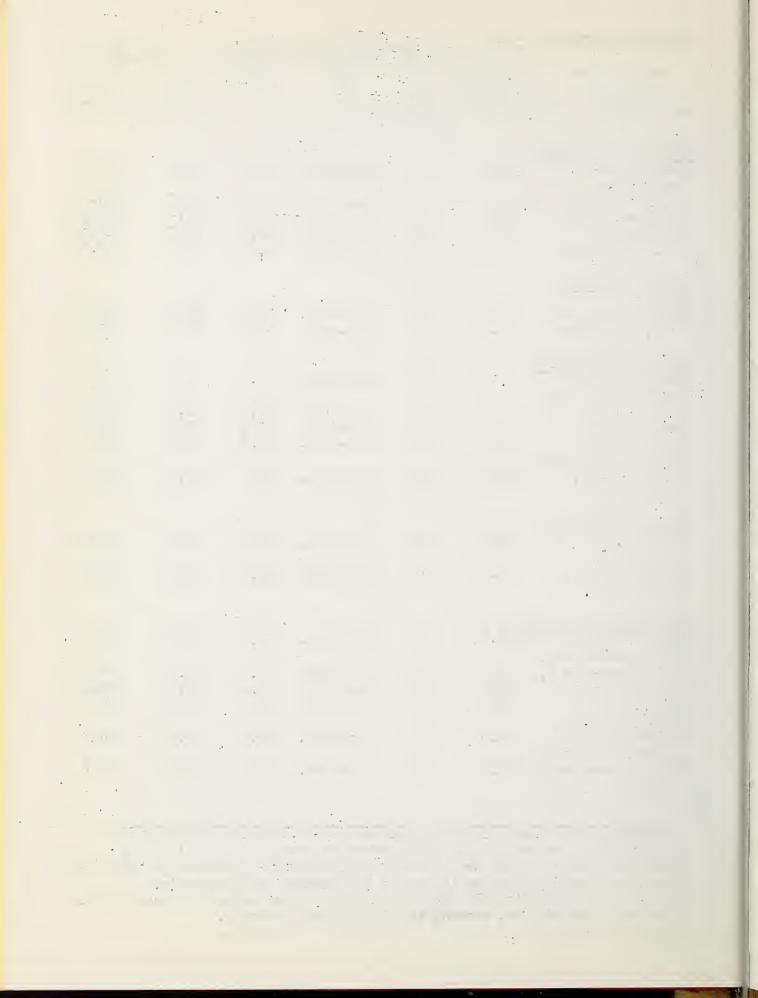
6 Observed flow plus changes in storage of Crescent Lake Reservoir.

d 1938-39 excepted,

Oregon State Engineer. Most 1956 records not available at this time.

Observed flow of Ochoco Cr. plus Canal plus changes in storage of Ochoco Res.

⁷ From State Engineer's file #3220a, tabulating total inflow to Crane Prairie Reservoir and outflow, showing the loss in the Reservoir.



Streamflow Forecasts - March 1, 1957 (Cont'd.) Seasonal Streamflow in Thousands of Acre Feet Measured Runcff* 15 - Yr. For e-Basin, Stream Forecast 1955 195年 15-Yr. Average and Runoff cast 1938-52 Station 1957 Period Avg. Deschutes River Basin (Continued) 575.8 697.9 511.0 Deschutes River 94 Apr-Septa 480.0 at Benham Falls 8 Apr-July 469.0 346.3 325.0 379.5 94 Tumalo Creek, 59.8 48.3 42.0 87 Apr-Septo 48.6 nr. Bend? 62.7 49.3 Squaw Creek, Apr-Sept. 46.7 45.0 91 nr. Sisters 152.0 White River, 79 170.5 176.3 120.0 Apr-Sept. 78 151.8 157.7 134.7 below Tygh Valley 105.0 Apr-July Hood River Basin Hood River, W. Fk., 128.0 87 197.8 146.9 Apr-Sept. 211.4 88 110.0 Apr-July 185.2 172.4 127.3 nr. Dee 260.0 85 Apr-Sept. 424.0 399.4 306.1 Hood River. 85 hr. Hood River10 220.0 259.7 Apr-July 358.6 343.1 Willamette River Basin 168.9 84.5 100.5 Row River. 82.0 23 Apr-Sept. 78.0 81 Apr-July 164.0 78.8 96.1 nr. Dorena Mid.Fk.Willamette R. 680.0 85 Apr-Septo 1071.0 823.1 798.3 Elw.N.Fk., Nr.Oakridge600.0 85 Apr-July 966.4 699.6 704.5 668.8 689.8 564.7 91 Apr-Septo McKenzie R., 515,0 429.9 91 527.3 497.4 at McKenzie Bridge 390.0 Apr-July McKenzie River. 1080.0 90 Apr-Sept. 1574.6 1336.4 1194.7 0,088 90 1310.4 1064.0 978.0 nr. Vida Apr-July 90 592.6 558.0 South Santiam 500.0 Apr-Sept. 973.5 472.0 90 92909 532.0 524.6 at Waterloo Apr-July North Santiam 955.4 841.5 730.0 87 Apr-Sep to 1122.9 at Mehamall 640.0 88 Apr-July 944.8 742.6 748.0 Willamette River Apr-Sept. 4354.5 90 7039.2 4902.6 3920.0 at Salem 6195.1 3985.3 3863.4 3480.0 90 Apr-July 201.3 83 Apr-Sept. 198.9 163.6 Clackamas River, 135.0 Apr-July at Big Bottom 110.0 83 164.2 164.0 132.5 185.7 Oak Grove Fk. 83 Apr-Sept. 203.6 217.8 155.0 abv. Power Intake Apr-July 168.8 120.0 83 160.0 145.3 722.7 Clackamas River 490.0 82 Apr-Sept. 812.0 599.3

Observed flow plus changes in storage in Crane Prairie, Wickiup and Crescent Lake Reservoirs.

82

84

85

9 Observed flow plus Columbia Southern Canal.
10 Observed flow plus P. P. & L. Co. power canal.

415.0

650.0

570.0

abv. Three Lynx

Clackamas River

nr. Cagadero

Apr-July

Apr-Sept.

Apr-July

616.4

932.4

798.9

507.4 777.2

668.7

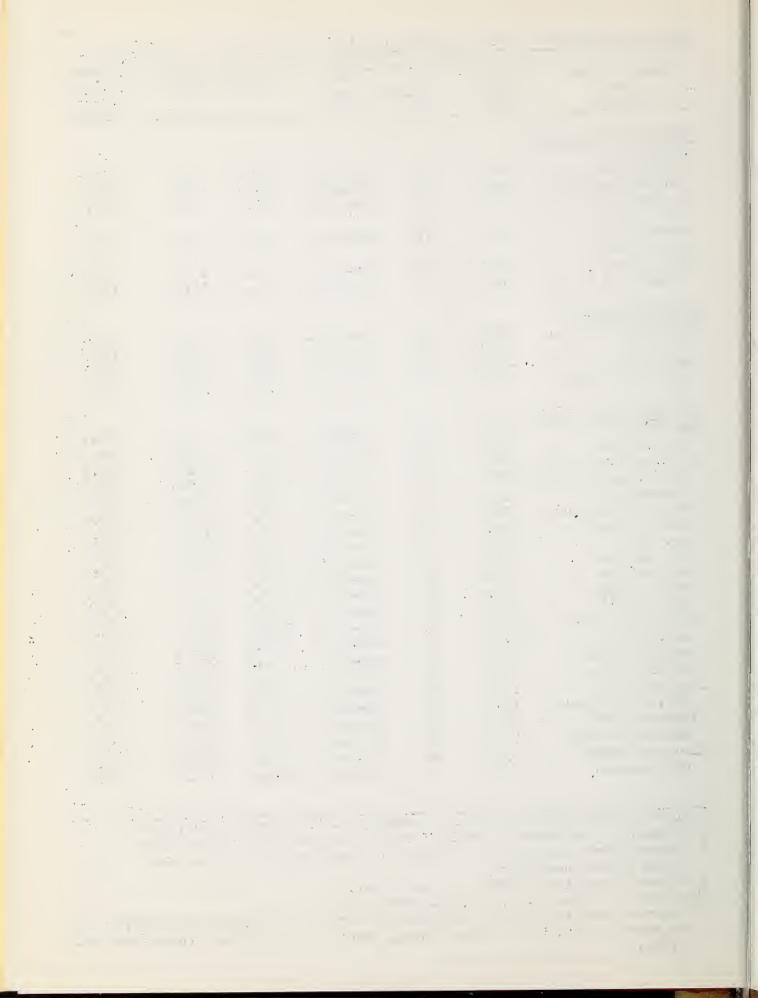
705.2

946.8

1079.4

^{*} Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. Most 1956 records not available at this time.

¹¹ Observed flow plus changes in storage in any of the following reservoirs which are above the station: Lookout Point, Detroit, Fern Ridge, Cottage Grove and Dorena.



Streamflow Forecasts - March 1. 1957 (Contid.)

Streamflow Forecasts	- March 1,	1957 (C	ontid.)			
				n Thousan		
Basin, Stream	Forecast	%	Fore-	Measured		15 - Yr.
and	Runoff	15-Yr.	cast	1955	1954	Average
Station	1957	Avg.	Period			1938-52
	OREGON A	ND CALIF	ORNIA COASI	BASINS		
Umpqua River Basin				-14-	0	2/1 0
No. Umpqua River,	134.0	82	Apr-Sept.	146.2	218.0	164.0
below Lake Creek12			A 0 1	(0.0	96.0	61. 0
Clearwater River,	51.0	79	Apr-Sept.	69.9	86.2	64.2
above Trap Creek						
D D						
Rogue River Basin			Ann Comb	2.0	6.4	6.0
Hyatt Res., net Inflow 13	No Snow	Surveys	Apr-Sept.	3.0	0⊕4	0.0
Fourmile Lake,	Made		Apr-Sept.	8.3	3.5	7.0
net Inflow14	6.0	- 88	Wbr-pehr.	0.5	2.5	1.0
Little Butte Cr. N. Fk.	30.3	40	A Cont	23.9	25.6	14.9
below Fish Lake 15	13.1	88	Apr-Sept.	2J#7	25.0	⊥ 4.€7
Rogue R.So.Fk.	/1 0	O)	Apr-Sept.	71.4	78.4	76.1
nr. Prospect16	64.0	84	Apr-July	60.8	65.5	65.1
Rogue R. Mid. Fk.,	54.0 62.0	83	Apr-Sept.	73.8	83.0	74.3
nr. Prospect17		84 85	Apr-July	58.4	64.3	58.7
Rogue River,	50.0 240.0	76	Apr-Sept.	307.6	375.1	316.5
above Prospect	205.0	77	Apr-July	257.1	305.9	265.1
Rogue River,	550.0	81	Apr-Sept.	653.0	741.2	680.8
below South Fork	445.0	80	Apr-July	531.4	588.9	553.0
Rogue R., at Raygold,	710.0	78	Apr-Sept.	839.8	987.3	905.6
nr. Central Point	600.0	79	Apr-July	702.7	803.8	760.7.
Rogue River,	670.0	79 79	Apr-Sept.	859.1	967.9	852.8d
at Grants Pass	0,0.0	17	whi -peh 04	O)/•±	701.7	0)2.0
Applegate River,	87.0	75	Apr-Sept.	80.4	154.7	116.0 ^d
nr. Copper	07.0	1)	••ht -neh 0	00•4	±2401	77040
Illinois River,	155.0	86	Apr-Sept.	194.5	191.7	181.2
at Kerby	177.0	00	htnch 00	- /4• /	+/- • 1	TOT #5
~ c 1101 o)						

12 Observed flow plus storage changes in Lemelo #1 Reservoir.

^{*} Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. Most 1956 records not available at this time.

¹³⁰bserved flow of Keene Creek at Hyatt Prairie plus storage changes plus 1600a.f., for estimated evaporation during April-September period.

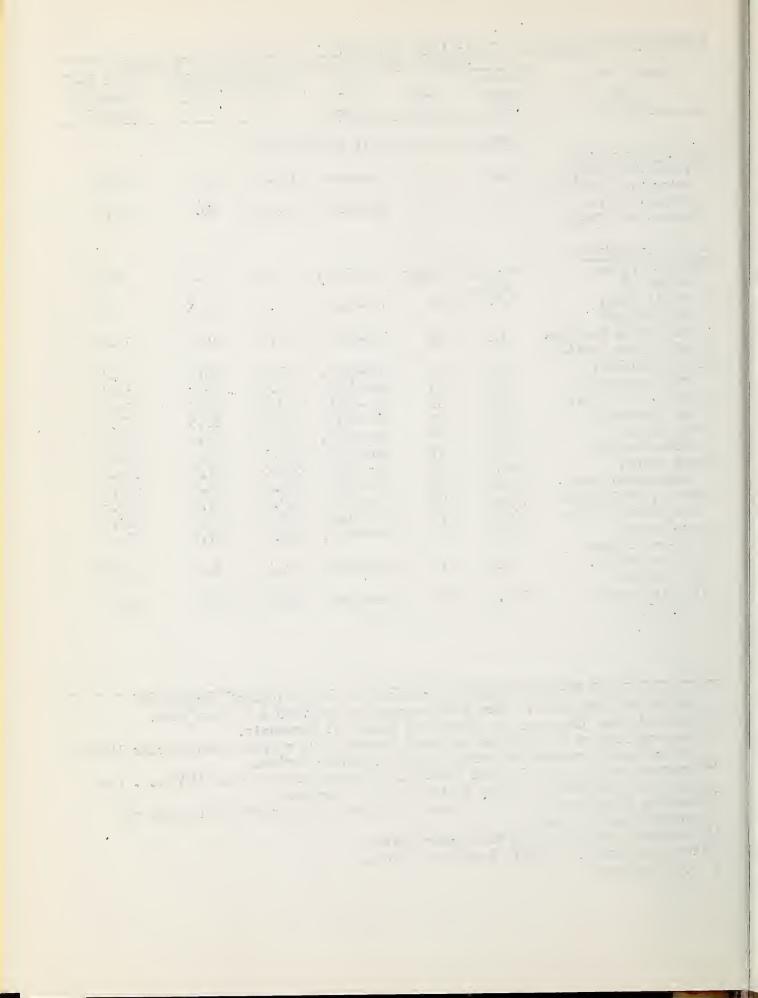
¹⁴⁰bserved outflow into Cascade Canal plus storage changes plus 1600 a.f. for estimated evaporation during April-September period.

¹⁵⁰bserved flow plus changes in storage in Fish Lake Reservoir plus 90% of Cascade Canal inflow

¹⁶⁰bserved flow plus South Fork Power Canal.

¹⁷⁰bserved flow plus Middle Fork Power Canal.

d 1938 excepted.



6. Streamflow Forecasts - March 1, 1957 (Cont'd.) Seasonal Streamflow in Thousands of Acre Feet Measured Runoff* 15 - Yr. Fore-% Basin, Stream Forecast 195年 Average 15-Yr. cast 1955 and Runoff 1938-52 1957 Period Station Avg. Klamath River Basin 252.6 260.0 Apr-Sept. 155.1 351.1 Sprague River. 103 Mr. Chiloquin 6L3.0 410.0 101 346.9 406.0 Williamson River. Apr-Sept. 553.9 3/10-2 Apr-July 277.6 below Sprague R. 525.6 525.0 834.5 100 Apr-Sept. 409.6 Upper Klamath Lake. 687.1 424-1 net Inflow19 425.0 100 Apr-July 320.4 65.0 66.9 86.3 Clear Lake Resa. 75 Mar-July 49.0 net Inflow 21.8 42.0 42.0 76 Mar-July Gerber Res., 32.0 net Inflow GREAT BASIN INTERIOR DRAINAGE Goose Lake Basin 44.2d Drew Reservoir, 18.0 山 Mar-July 18.3 53.0 net Inflow Warner Lake Basin 21.1e 8.9 Twentymile Cr. 10.0 47 Apr-June 12.1 nr. Adel 56.0 67.2 Deep Creek. 42.0 63 Apr-June 43.2 above Adel 15.6f 9.0 58 Apr-June 13.7 Honey Creek. 7.9 nr. Plush Chewaucan River Basin 66 18.0 Apr-June 27.6 97.8 72.8 Chewaucan River. nr. Paisley Malheur and Harney Lakes Basin Not Forecast Trout Creek, Apr-Sept. 4.1 3.5 9.6 nr. Denio Not Forecast 66.3 45.0 Donner und Blitzen Apr-Sept. 54.9

50

Apr-Sept.

51.7

102.3

42.0

51.0

R., nr. Frenchglen

Silvies River.

nr. Burns

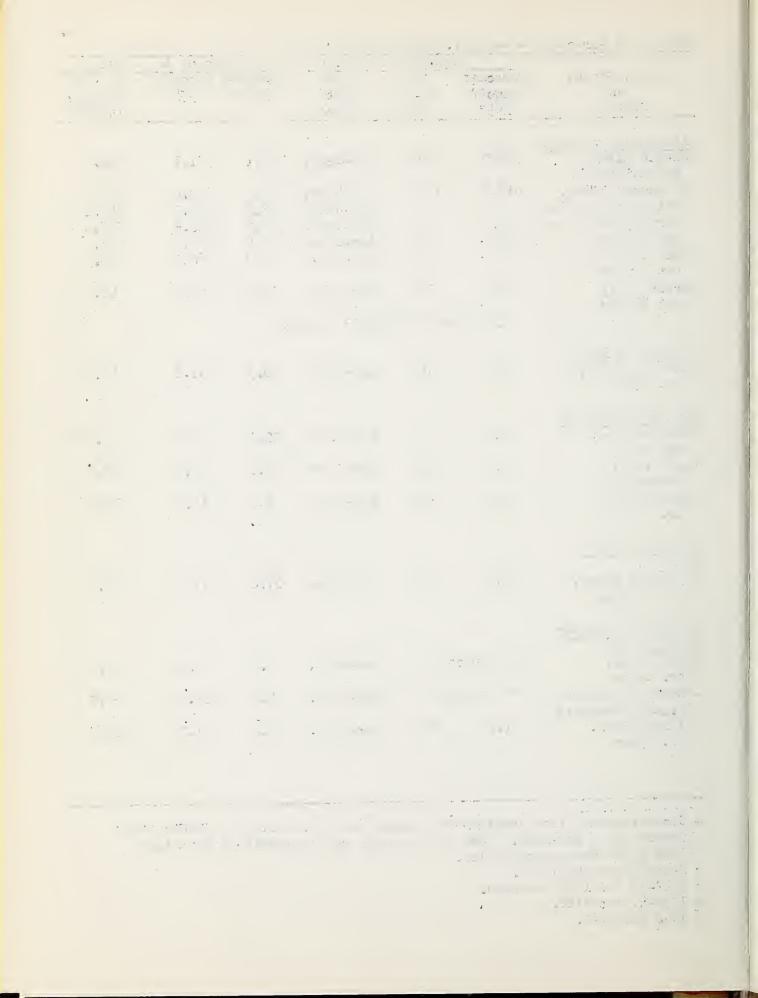
^{*} Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. Most 1956 records not available at this time. 19 From COPCO records of inflow.

c Records not available.

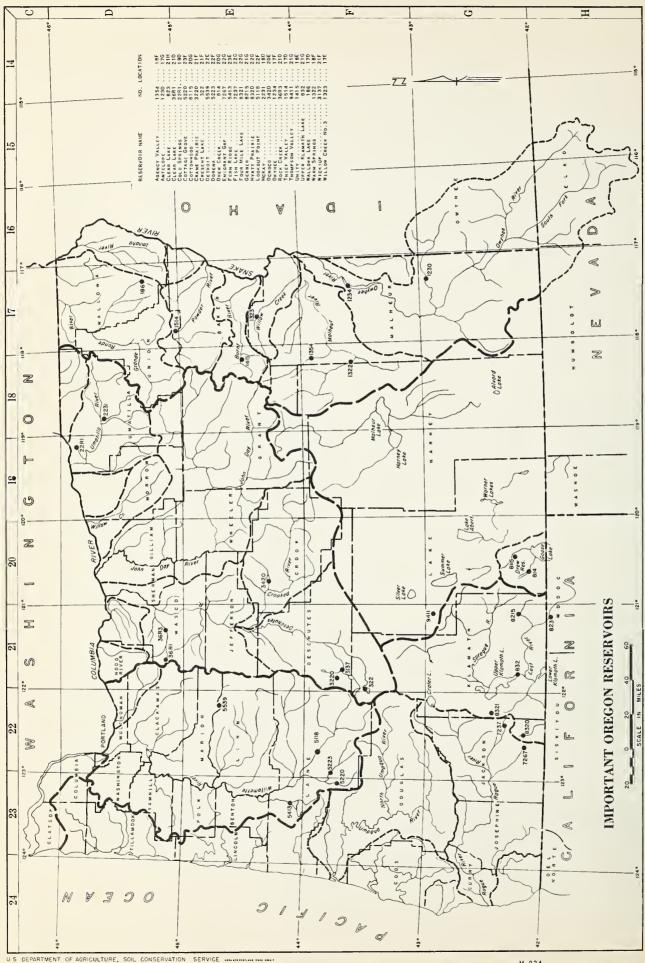
d 1942-43 and 1945 excepted.

e 1938-40 excepted.

f 1942 excepted.







STATUS OF OREGON RESERVOIR STORAGE - MARCH 1, 1957

BASIN		USABLE	USA	BLE STOP	AGE - 10	OO ACRE FEET
and/or STREAM	RESERVOIR	CAPACITY 1000s AF	1957	1956	1955	1938-52
		UPPER COI	and the second second second	Committee and Committee Committee		
Owyhee	Antelope Owyhee	36.5 715.0	9.1 632.0	N.R. 342.8	N.R. 182.3	9.6 513.7
Malheur	Warm Springs Agency Valley	191.0 60.0	157.3 41.6	57.5 25.4	27.5 23.6	88.2 38.2
Burnt	Unity	25.2	15.4	12.8	3.3	9.6 ^b
Grande Ronde	Wallowa Lake	40.9	34.3	24.4	17.8	19.8
		LOWER COI	UMBIA I	RAINAGE		
Umatilla	McKay Cold Springs	74.0 50.0	26.4 31.0	54.0 39.8	13.1 30.1	45•3 40•3
Deschutes	Ochoco Crescent Lake Crane Prairie Wickiup	46.0 54.9 55.3 203.0	28.6 65.5 56.0 200.1	35.0 51.7 50.0 170.6	21.7 23.1 45.1 198.4	22.0 40.9° 37.0 105.6 ^d
<u>Willamette</u>	Cottage Grove Dorena Fern Ridge Detroit Lookout Pt.	30.1 ^a 70.5 ^a 94.2 340.0 ^a 350.0 ^a	27.4 67.2 59.9 115.0 232.9	8.5 18.4 37.9 42.3 101.5	6.3 14.0 25.8 52.7 68.0	7•3 ^d 29•3 ^e
		N AND CALIF				\
Rogue	Fish Lake Fourmile Lake Emigrant Gap Hyatt Prairie	7.8 16.1 8.3 16.1	6.7 16.6 8.3 13.0	4.9 N.R. 8.4 6.4	5.5 9.3 2.0 9.9	4•7 7•0 6•4 5•5
Klama th	Upper Klamath I Gerber Clear Lake	.k.58կ.0 9կ.0 կկ0.2	73.2	482.0 52.7 332.6	366.9 27.4 223.0	388.7 35.3b 207.7b
		INTER	OR DRAI	NAGE		
Goose Lake	Cottonwood Drew	4.1 62.5	3.3 59.8	0.3 47.7	0•2 24•0	0.6 ^f 39.0 ^f

N.R. - - No report.

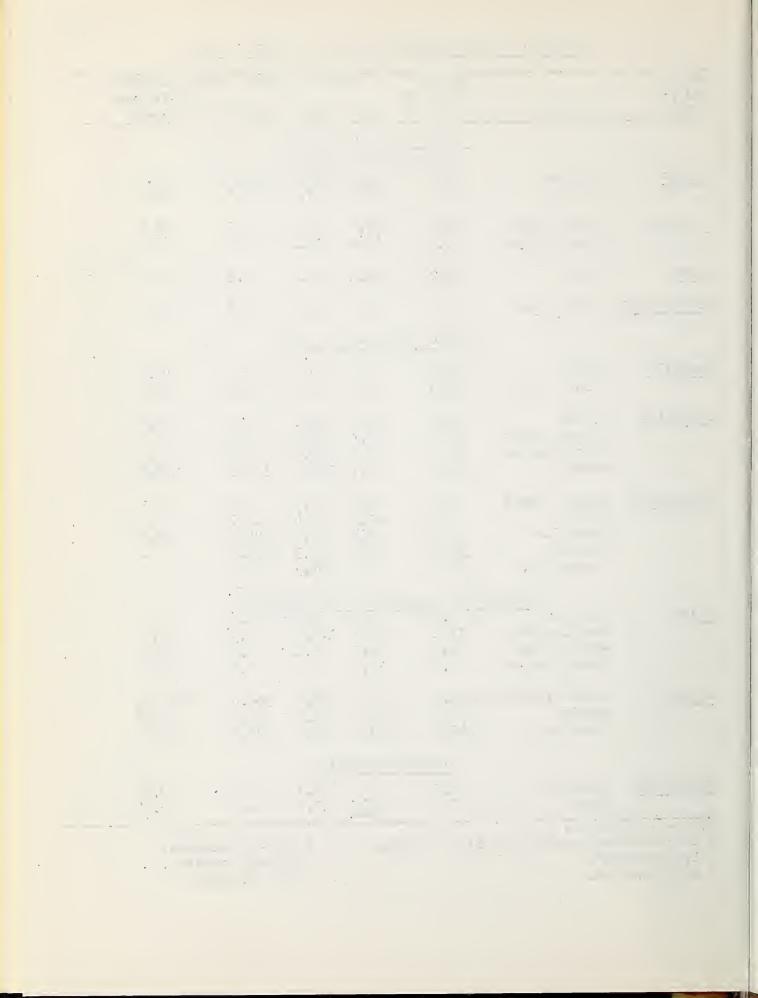
a Storage space reserved for flood control.

b 1938 excepted.

c 1951 excepted.

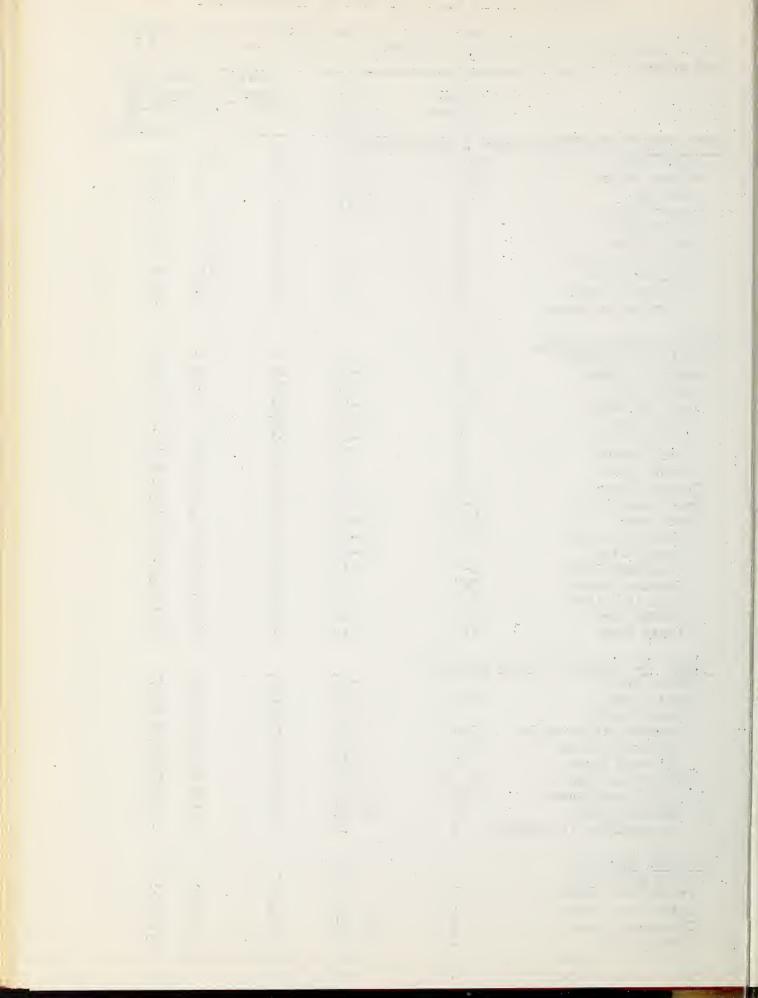
d 1938-42 excepted.

e 1938-41 excepted. f 1942 excepted.



The following tabulation of Oregon stream basins presents the water content of the snow about March 1, 1957 as percent of the same date in 1956 and 1955

DRAINAGE	No. of Courses	Yrs. Used		ch 1, 1957 Water at as percent of:
20.21.00	Averaged	1938-52	1956	
UPPER COLUMBIA DRAINAGE (Lot	ver Snake i	Avg. n Oregon)		
Owyhee River	17-18	5-15	56	103 67
Malheur River	5-6	8-15	44	77 63
Burnt River	5 - 6	8-15	42	83 59
Powder River	6	5-14	61	120 76
Pine Creek	1		76	151
Imnaha River	2 8	9	55	151 86
Grande Ronde River	8	9 - 15	5 9	105 &3 151 86
Wallowa River	2	9 14	55 59 55 75	151 86 112 101
Catherine Creek Main Grande Ronde	2 1 5	14-15	58	83 76
Main Grande Ronde)	14-17	<i>5</i> 0	0) 10
LOWER COLUMBIA DRAINAGE	_	- 1	60	71 (0
Walla Walla River	7	11:	60	74 68
Umatilla River	1 5 1	14-15 11	49	60 65 57 52
Willow Creek John Day River	10	9 -1 5	38 47	85 66
North Fork	รั	11-15	56	97 77
Middle Fork	3	9 - 15	53	104 74
Main Branch	5 3 3 1	15	45	86 66
South Fork	ĺ	15	46	70 61
Crooked River	2-3	15 15	33	53 31
Deschutes River	6-16	5-14	40	95 60
Hood River	4-5	5-15	43	63 56
Willamette Valley	10-32	8-15	35 43	62 59
Sandy River	3	11-15	43	61 63
Clackamas River Santiam Rivers	3-6 3-7	11 - 15 14	35 35 37	79 54 69 62
McKenzie River	2-8	14	37 37	62 63
Middle Fork	2-8	8-14	35	66 53
Coast Fork	1-5	14	18	28 46
ODECON AND CALTEODNIA COAST				
OREGON AND CALIFORNIA COAST Umpqua River	5-6	5-15	35	72 46
Rogue River	14-19	5 -1 5	33	73 59
Upper Rogue	7	5 - 15	47	95 66
Bear-Little Butte Cr.	3-4	14-15	19	40 27
Applegate River	1-2	14	23	68 59
Illinois River	2	11-13	15	50 49
Klamath Lake Basin	14-16	5-15	42	86 64
Williamson River	10	14-15	40	91 57
Sprague River	6	14-15	21	3 9 30
Gerber-Clear Lake Basin	3	14	0	0 0
INTERIOR DRAINAGE				
Goose Lake Basin	3	9-14	13	27 25
Warner Lake Basin	1	9	31	63 56
Silver Lake Basin	1	12	0	0 0
Chewaucan River	3 6	13-14	31 43	58 42 75 60
Harney Basin Alvord Lake Basin	1	14-15	43 37	58 42 75 60 15 15 15
Guano Lake Easin	i	12	11	15 15
Garage Towns				-/ -/



				1957	IOW COVER	MEASU		rs Re cord	
DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	Date of Survey	Snow Depth (In.)	Content		Cont	ent(In.) 1938-52 Avg.	
							<u> </u>	11460	1100014
<u>.</u>	PPEF	$\frac{\Gamma}{G}$	LUMB WERSNAK	IAD EINOR	RAIN EGON	A G E			
OWYHEE RIVER									
Jack Peak *Bear Creek	16山 15山	8420 7800	3/1 2/26	67 54	20.0			is Record	
*Granite Peak	17H4	7800	2/27	39	16.5 12.2	17.0	13.0	11.2	23 25
Upper Jack Creek	16H2	7250	3/1	2 8	8.6	7.8		9.6**	20
*Midas	16H3	7200	3/4	6	1.7	_ =		5.2**	14
*Upper Buckskin	17H1	7200	2/27	15	5.4	7•3		9.9**	13
*76 Creek	15H3	7100	2/26	26	7.4		7.7	12.3**	9
*Fox Creek	15H2	6800	2/26	18	5.9	8.6	7-4	8.8	23
Lower Jack Creek	16H1	6800	3/1	0	0,0	3.3	4.2	4.0	29
Rodeo Flat	15H6	6800	2/28	14	5.4	8.1	5.7	9.9	23
Big Bend	15H4	6700	2/27	18	5.6	13.0	4.0	9.4	28
Fry Canyon	15H7	6700	2/28	10	3.8	9.0	5.5	9.0	23
*Lower Buckskin	17H2	6700	2/27	15	5.9	11.0	5.1	8.9	22
*Martin Creek	17H3	6700	2/27	17	6.5	10.8	6.5	8.6	25
Gold Creek	15H5	6600	2/27	11	1.1 6 1	9.3	3.7	6.3	24
*Disaster Peak	18H1	6500	2/28 3/3	22	8.4	22.6	5.7		8
Silver City South Mountain#2	16F3 16G1	6400 6340	3/3	Ц0 30	12.9 9.4	18.7		15.2**	11
Taylor Canyon	15H9	6200	3/1	0	0.0	14.8	8.9 4.6	11.9**	17
*Tremewan Ranch	15H8	5700	3/1	0	0.0	9•3 3•3	1.3	5.4 2.2	22 25
Cliffs	16G2	5200	Not Su		0.0	2.4	5.0	2.6	2
Lowery Ranch	16G3	4800	Not Sur					s Record	
Shumway Ranch	17F1	4400	2/20	18	3.6			is Record	
Highway Camp	17G1	4300	Not Su					is Record	
Barren Valley	18F5	4100	Not Sur					s Record	
MALHEUR RIVER									
*Barney Creek	18E14	5950	2/28	16	5.1			8.3**	12
Blue Mountain Spg		5900	2/27	35	11.8			14.9	21
Crane Prairie	18E19	5375	2/27	13	4.7	13.9	7.0	9.6**	18
Lake Creek	18E18	5120	2/27	20	7.1	14.3		10.7**	18
Rock Spring	18F1	5100	3/1	7	2.5	7.9	5.3	6.3	21
Sinking Water Eldorado Pass	18F4 18E20	4800	Not Su	•	0.0	7.3	3.8	4.7**	17
Bonita	17E3	4600 4600	2/28	0	0.0	4.7	3.5		, 2
Shumway Ranch	17F1	4000 4400	No repo	18	2.4			s Record	
Claren Creek	1 250 T (TT	1,7,00	M	TO.	3.6	170 PI	eviou	is Record	1

^{*} Not located directly on this drainage area.

17E2

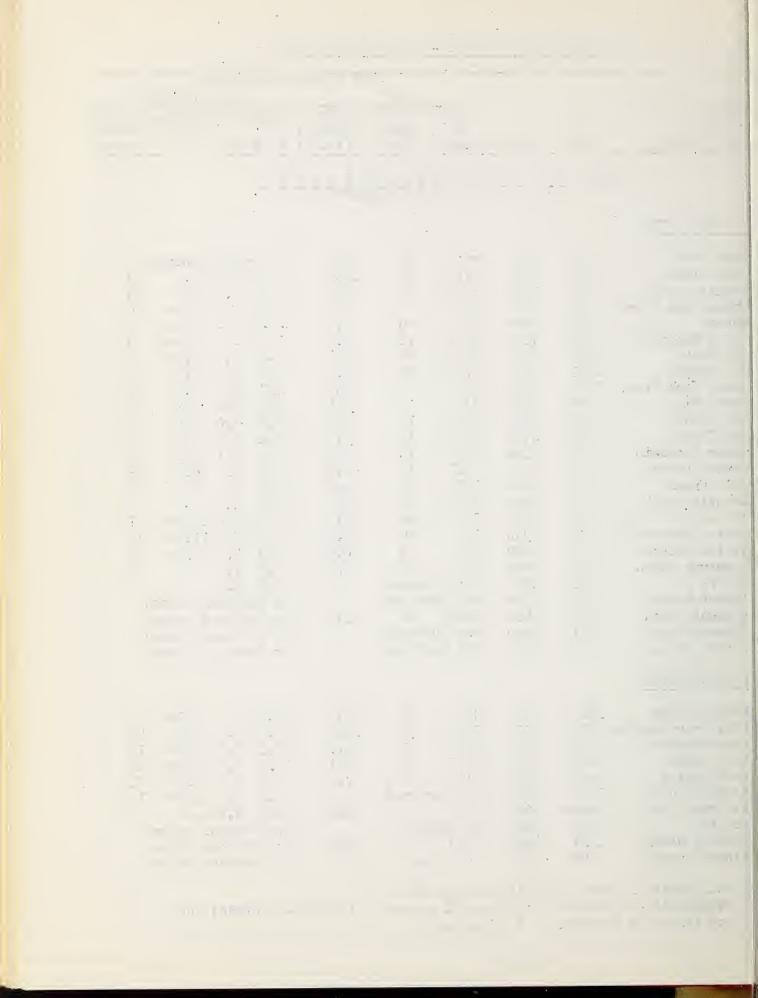
Clover Creek

4100

No report

No Previous Record

^{**}Average is for less than 15 years of record in the 1938-52 period but not less than 5 years. Telegraphic.

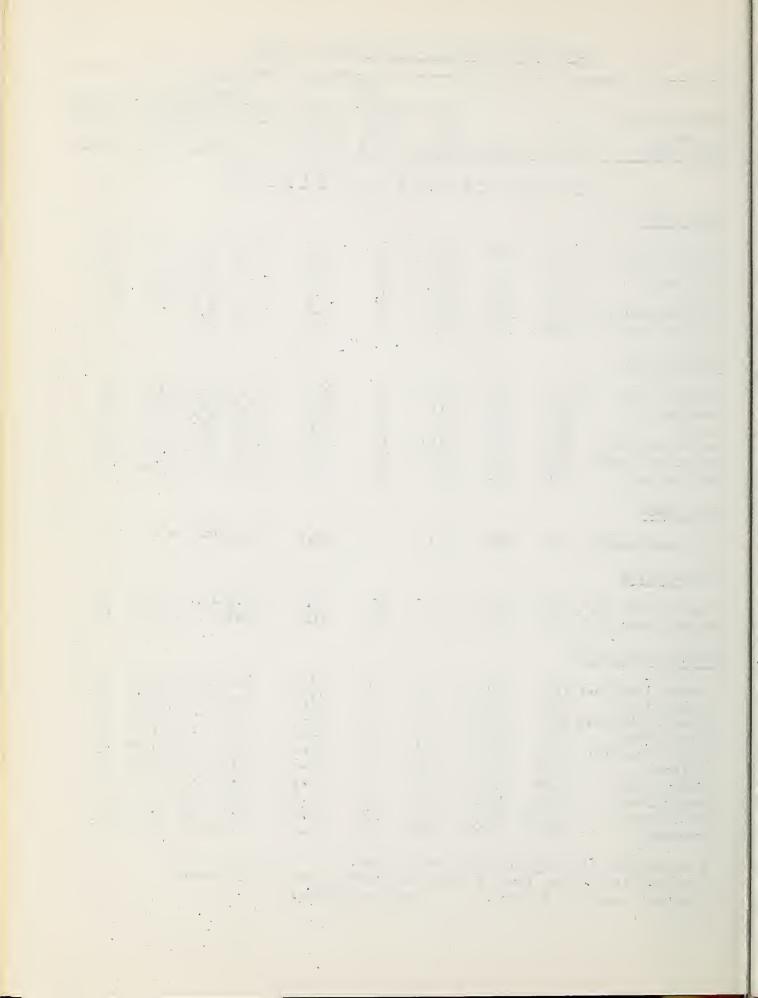


			SNOW COVER MEASUREMENTS 1957 Past Record						
DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	Date of Survey	Snow Depth (In,)	Water Content (In.)	Water	Conte	ent (In) 1938–52	Previous Yrs. of Record
	UPPE	R C	OLUM	BIA	DRAI	N A G	E		
BURNT RIVER									
Barney Creek Dooley Mountain *Gold Center Tipton Blue Mountain Smt Eldorado Pass	18E14 17E1 18E8 18E9 18E13 18E20	5950 5430 5340 5100 5098 4600	2/28 2/26 3/1 2/26 2/28 2/28	16 17 25 20 17 0	5.1 4.6 7.8 7.0 5.4 0.0	10°3 11°1 17°2 14°8 12°7 4°7		8.3** 9.3** 12.3** 11.4** 9.0	12 18 17 13 21 2
POWDER RIVER									
Anthony Lake Goodrich Lake Bourne Dooley Mountain Eilertson Meadows *Gold Center	18E1 18E6 18E5 17E1 18E3 18E8	7125 6775 5800 5430 5400 5340	2/25 3/1 3/2 2/26 3/2 3/1	74 83 44 17 24 25	23.5 ^b 27.4 12.8 4.6 8.2 7.8	43.6	17.5 11.0 5.6 9.4	24.3** 37.3** 15.6** 9.3** 11.5** 12.3**	17 9 20 18 18
PINE CREEK									
Schneider Meadows IMNAHA RIVER	17D8	5400	3/1	70	24.7	32. 3	16.4	w	6
Aneroid Lake No.2 GRANDE RONDE RIVE	17D2	7480 7000	3/2 3/2	87 69	27•4 21•0			31.4** 25.0**	13 13
Aneroid Lake No.1 Anthony Lake Aneroid Lake No.2 Moss Spring Beaver Reservoir Tollgate Lucky Strike County Line Schoolmarm Meacham	18E1	7480 7125 7000 5850 5340 5070 5050 4800 4775 4300	3/2 2/25 3/2 3/1 2/26 2/26 2/25 3/4 3/4	87 74 69 56 23 47 26 15 13	27.4 23.5b 21.0 21.3 7.4 17.5 6.9 4.8 4.2 7.2	31.6 35.2 28.5 16.2 29.2 17.4 10.9 9.0	18.2 14.8 19.1 8.7 23.5	4.6**	

^{*} Not located directly on this drainage area.

**Average is for less than 15 years of record in the 1938-52 period but not less than 5 years.

**Description of the partly estimated.

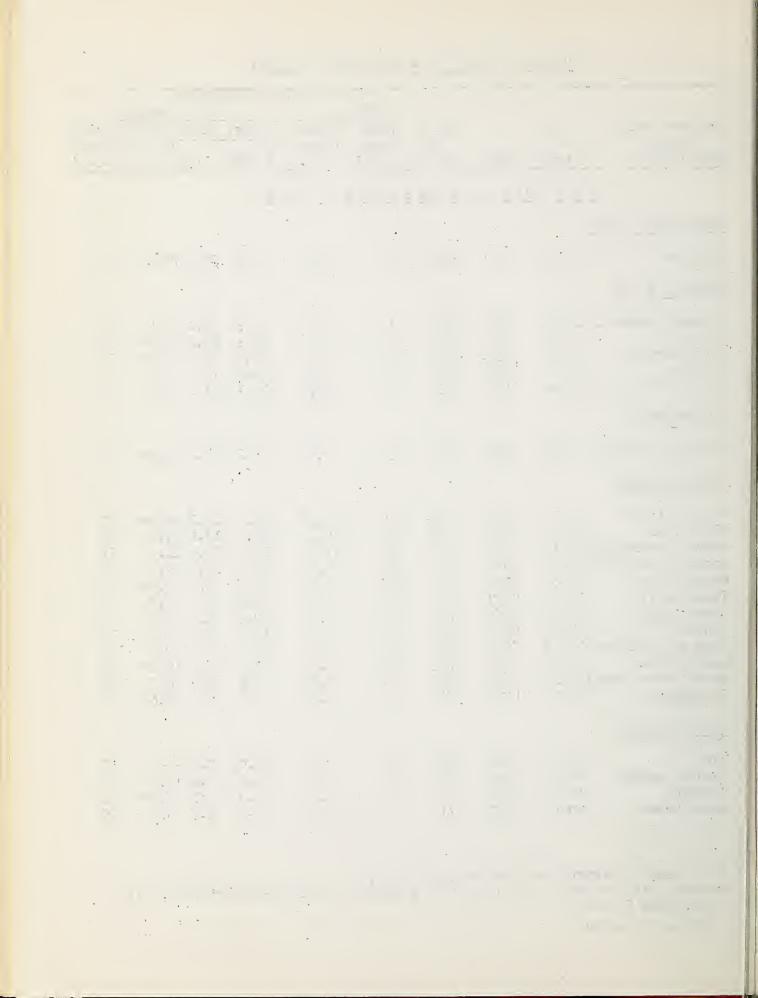


					OW COVER	MEASUR	MENTS Past Recor	a
DRAINAGE BASIN	No.		Date	1957 Snow	Water	:Water	Content(In	
and	or		of	Depth	Content	:	1938-	52 Yrs.o
SNOW COURSE	State	Elev.	Survey	(In.)	(In.)	: 1956	1955 Avg	. Record
<u>L</u>	<u>O W E R</u>	COL	<u>U M B I</u>	A DR	<u>AINA</u>	<u>G</u> E		
WALLA WALLA RIVER	_							
Tollgate	18D3	5070	2/26	47	17.5	29.2	23.5 25.6*	* 18
UMATILIA RIVER								
Arbuckle Mountain Tollgate Lucky Strike Meacham Emigrant Springs	19D2 18D3 18D6 18D5 18D4	5400 5070 5050 4300 3925	2/28 2/26 2/25 2/26 2/26	12 47 26 21 13	5.8 17.5 6.9 7.2 4.9	15.2 29.2 17.4 13.8 10.1	10.1 11.2* 23.5 25.6* 10.5 12.1* 14.2 9.3 11.8 7.2	* 18
WILLOW CREEK								
Arbuckle Mountain	19D2	5400	2/28	12	5.8	15.2	10.1 11.2*	* 15
JOHN DAY RIVER								
*Anthony Lake Olive Lake Blue Mountain Spgs Arbuckle Mountain Cold Center *Izee Summit Starr Ridge Tipton Hlue Mountain Smt *Lucky Strike Beech Creek Summit Schoolmarm	19D2 18E8 19E9 19E7 18E9 18E13 18D6		2/25 2/27 2/28 3/1 2/28 2/28 2/26 2/26 2/28 2/25 2/27 3/4	74 49 35 12 25 14 8 20 17 26 6	23.5 ^b 15.4 11.8 5.8 7.8 5.0 3.3 7.0 5.4 6.9 2.6 4.2	31.6 25.1 20.5 15.2 17.2 10.8 10.3 11.8 12.7 17.4 8.2 9.0	18.2 24.3* 13.4 17.0 10.4 14.9 10.1 11.2* 8.8 12.3* 7.1 8.2 4.9 5.8 7.6 11.5* 5.8 9.0 10.5 12.1* 5.2 6.2 8.4 4.6*	21 21 * 15 * 17 21 21 * 13 21 * 18
CROOKED RIVER								
Derr Ochoco Meadows Tamarack Marks Creek	19E3 20E2 19E4 20E1		2/28 3/1 2/28 3/1	14 15 6	4.8 4.5 1.8 0.4		7.4 6.4 10.9 6.2 6.3* 4.5 5.0	

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bPartly estimated.



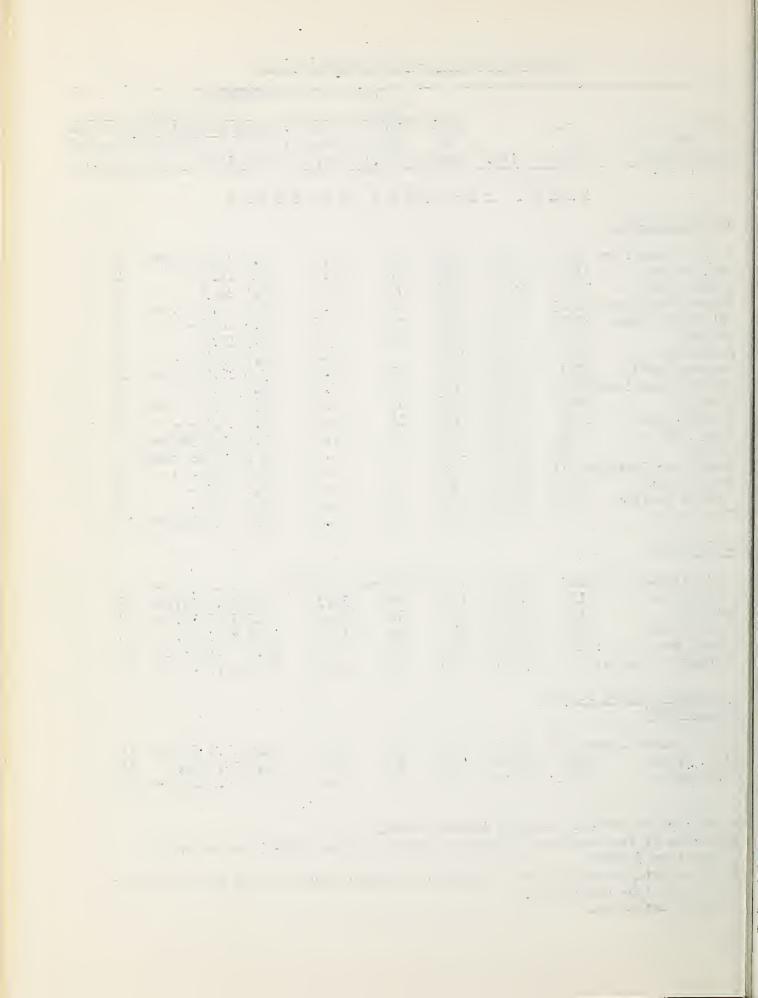
				SNOW 1957	COVER ME	ASUREA	ENTS Past	Record	
DRAINAGE BASIN	No.		Date	Snow		Water		ent(In.	Previous
and SNOW COURSE	or State	Elev.	of	Depth (In.)	Content: (In.):	1956	ז סלל	1930-52 Avg.	Yrs. of Record
SNOW COURSE	State	TTGA.	Survey	(Tite)	(IIIe) *	1950	1777	11/5	100014
	LOWE	R C	TIM	BIA	DRAI	N A G	E		
DESCHUTES RIVER									
		6400	2/26	98	35.9			53.9**	9
Paulina Lake Windigo Pass	21F13 22F15	6330 5 800	2/27 2/28	<u> </u>	15.6 31.3		11.6 24.3		2 6
Three Creek Mdws.		5600	2/25	24	9.8	31.8		22.3**	10
Willamette Pass	22E14	5600	3/1	71	27.5	64.3	24.5		6
Tangent	21F3	5400	2/26 2/27	28 8	9.4 3.1	_	12.8		5 2
Fire Road Cascade Summit	21F14 22F3	5050 4880	3/1	47	18.8	74.4		32.0**	12
New Crescent Lake		4800	2/28	19	7.2		10.8		5
*Chemult	21F11	4760	2/28	10	3.8	19.1		11.3**	20
Crescent Lake Hogg Pass	21F9 21E6	4760 4755	2/28 2/28	14 69	6.0 27.5	23.7 58 h	11.0	539.8**	8 16
Mowich	21F17	4700/	2/27	7	3.1			us Recor	
Black Pine Spring		4600	2/25	9	2.8	10.8	-		5
Hungry Flat	21F4	4400 4285	2/26 2/27	8 0	3.0 0.0	13.5			5 5 2
Paulina Prairie Clear Lake	21F15 21D12	3500	3/1	19	7.3	3.5 20.8	3.2 8.4	13.1**	15
HOOD RIVER	_		3 , –	_,	, 0,		- •		
Tilly Jane-Mt. Hoo	מת נכנ	6000	Soo P T	17 Summ	y of 2/16			50.1**	7
Phlox Point	21D8	5600	3/4	76	34.3	74 <u>-</u> 4	57.6	53.3**	18
Red Hill	21D4	4400	2/28	56	25.6	55.7	⁰ 39.0	56.4**	9
Still Creek	21D9	3700	3/4	34	13.8			21.3	19
Clear Lake Greenpoint Reserv	21D12 .21D1	3500 3400	3/1 2/21	19 44	7.3 11.1	20.8 28.6	15.2	13.1**	15 7
WILLAMETTE VALIEY SANDY RIVER	STREAMS	3							
Phlox Point-Mt.Ho	od 21D8	5600	3/4	76	34.3	74.4	57.6	53.3**	18
Still Creek	21D9	3700	3/4	34	13.8	33.7	25.0	21.3	19
Clear Lake	21D12	3500	3/1	19	7•3	20.8	8.4	13.1**	15

^{*} Not located directly on this drainage area.

b Partly estimated.

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Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.



			SNOW COVER MEASUREMENTS						
DRAINAGE BASIN and SNOW COURSE WILLAMETTE VALLEY	No. or State	Elev.	Date of Survey	1957 Snow Depth (In.)	/	:Water	Content(In.) 1955 1938-52 Avg.		
CLACKAMAS RIVER	O III A III	(00110	<u>u., /</u>						
*Clear Lake Peavine Ridge Clackamas Lake Timothy Lake Big Bottom Lake Harriet SANTIAM RIVERS	21D12 21D14 21D13 21D18 21D15 21D16	3500 3500 3400 3295 2118 2045	3/1 3/4 2/28 3/4 3/5 3/3	19 23 20 23 16 0	7.3 8.9 7.6 8.7 5.6 0.0	24.7 19.3 23.3	6.6	15 19 16 1 6 6	
Hogg Pass Santiam Junction Marion Forks Whitewater Bridge Detroit (new town Detroit Dam Mill City Snow Line: Approxi)22E1 22E2 22E3	4755 3990 2730 2175 1500/ 1580 826	2/28 2/28 2/28 2/28 2/28 2/28 2/28 2/28	69 28 25 8 0	27.5 11.9 9.6 2.3 0.0 0.0	37.8 24.8 11.7 8.0	34.2 ^b 39.8** 20.2 23.1** 14.5 16.6** 5.8 0.0 0.0	16 16 16 7 5 6	
McKenzie Hogg Pass Santiam Junction Dead Horse Grade White Branch Slid Lost Creek Ranch McKenzie Bridge Vida Snow Line: Approxi	21E8 e21E9 22E4 22E5 22E6	4800 4755 3990 3800 2800 1956 1372 800	3/1 2/28 2/28 3/1 3/1 3/1 3/1	72 69 28 23 11 0	30.2 27.5 11.9 8.4 4.1 0.0 0.0	58.4 37.8 36.0 16.0 10.8 3.2	36.7 34.2 39.8 ** 20.2 23.1 ** 21.8 11.3 8.1 0.0	7 16 16 6 6 6 3 5	
MIDDLE FORK WILLA	METTE RI	VER							
Willamette Pas Cascade Summit Champion Salt Creek Falls Railroad Overpass McCredie Springs Oakridge Meridian Dam Snow Line: Approxi	22F6 22F7 22F8	5600 4880 4500 4000 2750 2120 1310 750	3/1 3/1 2/28 3/1 3/1 3/1 3/1	71 47 26 17 T 0 0	27.5 18.8 10.3 6.0 T 0.0 0.0	43.0 33.4 24.4 8.8 3.0	24.5 22.2 32.0** 27.0 22.4** 14.6 6.2 0.0 0.0 0.0	6 12 18 8 8 8 7 7	

^{*} Not located directly in this drainage area.

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**Description of the 1938-52 period but not less than 5 years.

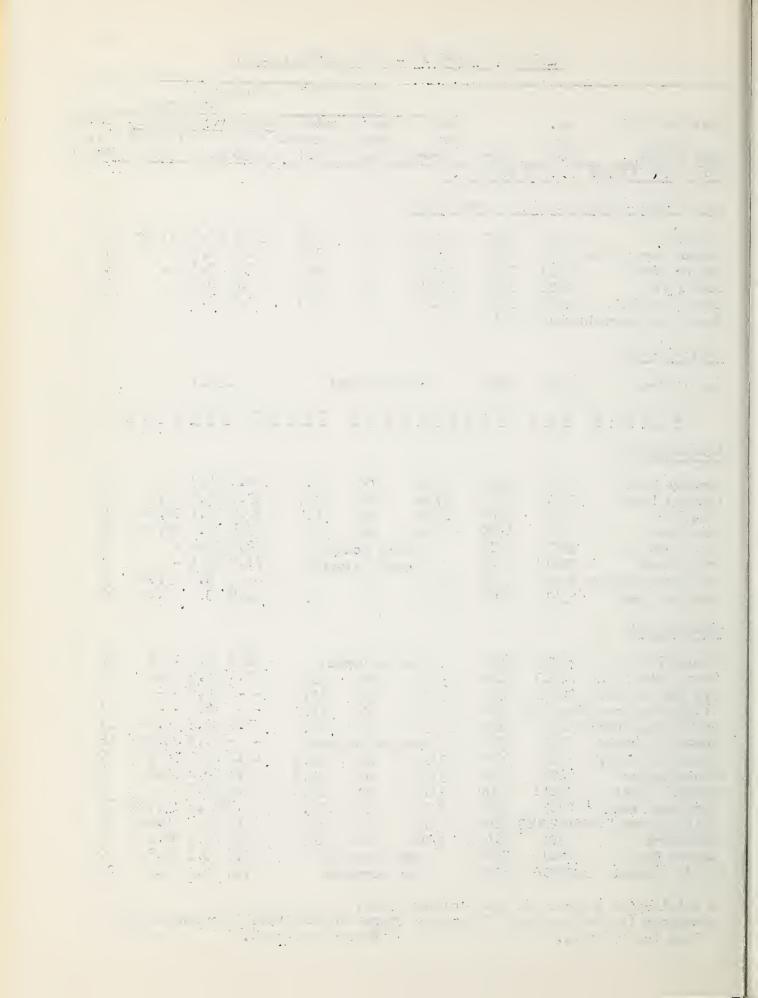
**Description of the 1938-52 period but not less than 5 years.

	OREGO	IN STACKA	OTTANOC	ADUI	PIARCH I	1931			
					COVER M				
DRAINAGE BASIN	No.		Date	1957 Snow	Matan			Record ent(In.)	Previous
and	or		of	Depth			001100	1938-52	Yrs. of
SNOW COURSE	State	Elev.		(I_{n_*})	(In.)	: 1956	1955	Avg.	Record
WILLAMETTE VALLEY	STREAMS	(Cont'	d.)						
COAST FORK WILLAM	ETTE RIVI	ER (Row	River)						
Champion	22F9	4500	2/28	26	10.3			22.4**	18
Golden Curry Creek		3136	2/28	0	0.0		7.2		7
Weaver Creek Lund Park	22F11 22F12	2440 1740	2/28 2/28		0.0 0.0		2.3		6 7
Layng CreekR.S.		1290	2/28	0	0.0	, 0.0	0.0		7
Snow Line: Approxi			2, 22	ŭ					
MARY'S RIVER									
Mary's Peak	23E1	3 620	Not	Survey	ed		14.7		3
OREGON	A N D	CAL	<u>I F O R</u>	NI I A	<u>C</u> <u>O</u> <u>A</u> :	S T	<u>R</u> A	INAG	E
UMPOUA RIVER									
Windigo Pass	22F15	5800	2/28	77	31.3	66.6	24.3		6
Diamond Lake	22F18	5315	2/28	29	11.7	33.7	14.5	20.3	28
Whaleback	22G1	5140	2/28	42	16.7	50.8	23.1	36.9**	9 18
Champion North Umpqua	22F9 22F16	4500 4215	2/28	26 ort del	10.3	22.5	13.4	22.4**	5
Trap Creek	22F17	3800		ort del		21.0	15.1		5 3
Goolaway Mountain		3780	3/1	T	T			3.5**	9
Goolaway Gap	23G1	3050	3/1	0	0.0	14.0	3.6	1.1**	10
ROGUE RIVER									
Wagner Butte	22G18	6900	Not	Survey	ed			14.8	19
Seven Lakes No.1	22 010	6 800	3/2	98	40.6	65.2		45.1**	9
Big Red Mountain Little Red Mounta	22G21 in 22G22	6500 6500	3/2	36	15.5 12.7		20.6		7 7
*Park Headquarters		6450	3/3 3/1	30 93	36.6	71.4		54.4**	13
Scragg Mountain	22H1	6200		ort del	-			25.4**	12
Seven Lakes No.2	22G11	6200	3/2	62	26.9			36.3**	9
*Annie Spring *Fourmile Lake	22G6 22G12	6018 6000	3/1 3/1	62 32	26.2 12.0		26.2		23 5
Grayback Peak	23G3	6000	2/22	26	11.6			19.7**	15
Billie Creek Divi	de 22Gl3	5300	3/1	23	10.1	37.0	20.1	20.6**	23
Whaleback	22Gl	5140	2/28	42	16.7			36.9	9
Hobart Lake *Hyatt Prairie Re	22G17	5010 4900		Survey Survey		12.5 17.4			9 22
A Tall To Me	52245	4700	NOC	par. vey	eu	-144	741	7.4	

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**Partly estimated.

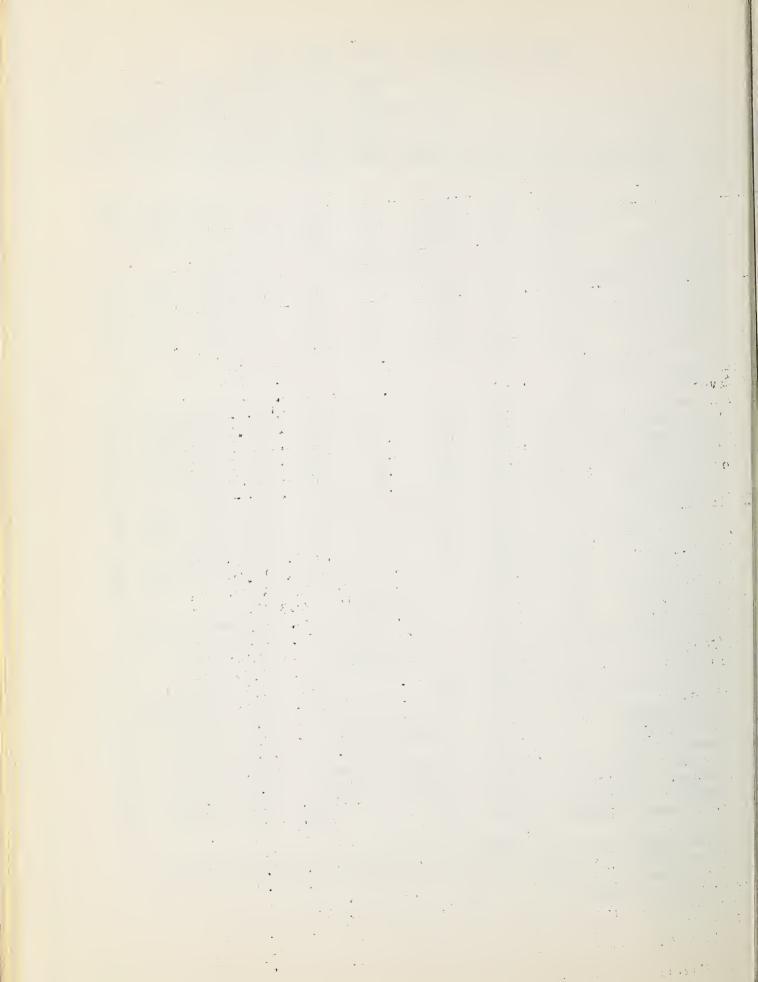


			CNO	CONTRO	MEASURE	TEN TO		
			1957	COVER.	MINOCACI		Record	
DRAINAGE BASIN No.		Date	Snow	Water	:Water)Previous
and or		0.1	Depth	Conten			1938-52	Yrs. of
SNOW COURSE State	Elev.	Survey	(In.)	(In.)	: 1955	1955	avg.	Record
ROUTE RIVER (Contid.)								
Title Total Control	1000	o /n	_		00 (30.1	30 3 4 4	00
Fish Lake 22Gl4 Siskiyou Summit 22G20	4865	3/1	T	T	1/1.2	10.4	10.1**	20 19
Siskiyou Summit 22G20 Althouse 23G4	74930 74930	3/3 2/26	0 1	0.0 0.4	15.6	4.5	5.0**	17
Page Mountain 23G5	4015	2/26	0	0.0	18,0	5.6	J. U.A.A	2
Oregon Caves 23G6	4000		Surveye		# =	0.4		ì
Goolaway Mountain23G2	3760	3/1	T	T		5.3	3.5**	9
Silver Burn 22G2	3720	3/1	10	4.1	21,0	12.2		19
South Fork Canal 22G9	3500	3/1	0	0.0	5.5	2.7	3.7	19
Goclaway Gap 23Gl	3 05 0	3/1	0	0.0	1400	3.6	1.1**	10
Hazel View 23Hl	2500	2/26	0	0.0	7.3	2.5		2
KLAMATH LAKE BASIN								
Summer Rim 20G2	7200	2/24	33	9.0			14.1**	17
Seven Lakes No.1 22G10	6800	3/2	98	40.6			45.1**	9
Park Headquarters22G5	6450	3/1	93	36.6			54.4**	13
Seven Lakes No.2 22G11	6200	3/2	62	26.9			36.3**	9
Annie Spring 22G6	6018	3/1	62	26.2		26.2		23
Fourmile Lake 22G12	6000	3/1	32	12.0	70,7	21.2		4
Strawberry 20G9	5600		rt dela	9•0			9•2** 6•7**	16
*Quartz Mt.(COPCO) 9 Sun Mountain 21G2	5504 5350	3/1 2/25	0 41	16.5	15 ₀ 0	6.0 13.6		25 19
*Quartz Mt. 20G6	5320	$\frac{2}{2}$	0	0.0	11.2		6.2**	18
Billie Creek Divide 22Gl		3/1	23	10.1			20.6**	23
Crowder Flat 20H2	5200		Survey				3.1**	12
Taylor Butte 21G3	5100		Survey		14.0	3.4		4
Bly Mountain 21G5	5090	3/1	o °	0.0			s Recor	
Lake of the Woods22G15	4960	Rep	ort dela	ayed	21.5	11.8	9.1	20
Hyatt Prairie Res. 22G16			Survey	ed	17.4	5.1	9.4	22
Gerber 21G4	4850	3/1	0	0.0	5.9	3.6		6
Bly 101 Ranch(COPCO) 10		2/28	0	0.0	2.8	2.1		30
Chemult 21F11	4760	2/28	10	3.8	19.1		11.3**	20
Yamsey (COPCO) 12	4600		ort dela		6.5	3.5	2.5	27
Kirk (COPCO) 6	4533		ort dela		12.1	6.5	5.9	29
Beatty (COPCO) 1 Crystal (COPCO) 4	4300 4200	2/28 Ren	O ont del	0.0	0.8	0.1	0.1 8.7	30 27
Harriman Lodge(COPCO) 8	4200 4200		ort dela ort dela		9.2	4.8	4.0	29
Chiloquin (COPCO) 3	4200	2/28	0	0.0	1.6	T	1.7	27
Fort Klamath (COPCO)5	4150	2/28	4	1.6	5.1	4.6	3.7	30

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^{**}Average is for less than 15 years of record in the 1938-52 period but not less than 5 years.

b Partly estimated.



	***************************************	-			SNOW CO	VER M	EASUR	EMENTS	
				1957				Record	
DRAINAGE BASIN	No_{ullet}		Date	Snow	water:				
and SNOW COURSE	or	TP7	of	Depth	Content: (In.):	3.056	י מכב	1930-52	Pocond
SNOW COURSE	State	TTGA.	Survey	(In.)	(TU*);	1950	1900	Avg.	necora
	I	NTE	RIOR	DRA	AINAG	E			
GOOSE LAKE BASIN	=		2 2 2 2	-		_			
Cox Flat	20G11	5750	Not Surv	ണ്ടർ		No Pr	ະຄາກຳ ດາ:	s Recor	'n
State Line	20H1	5750	Not Surv					s Recor	
Camas Creek	20G8	5720	2/28	16	5.9			10.6**	
Strawberry	20G9	5600	Report d			17.2b	5.3	9.2**	
Quartz Mt. (COPCO)		5504	3/1	o o	0.0	15.0			
Quartz Mountain	20G6	5320	3/1	0	0.0	11.2	6.1		
Crowder Flat	20H2	5200	Not Surv	eyed			~ #	3.1**	12
WARNER LAKE BASIN									
Sherman Valley	20G10	6690	Not Surv	or a d		No D-		s Recor	i
*Camas Creek	20G10 20G8	5720	2/28	16	5.9			10.6**	
01001	2000	2120	2/20	10	-	1/40	/#4	TOPOXX	1)
GUANO LAKE BASIN									
Bald Mountain	19H1	6720	3/1	3	0.6	5.4	3.9	4.1**	16
CHEWAUCAN RIVER			- /-1						
*Summer Rim	20G2	7200	2/24	33	9.0			14.1**	
Sherman Valley	20G10	6600	Not Surv		2 년			s Recor	
	•		•		4.5				
				•	00				
7	2000	7,720	J/ ±		0,0	TTSC	OPT	Openia	10
SILVER LAKE BASIN									
Silver Creek	21F12	4900	3/1	0	0•0	8.7	3.3	3.6**	16

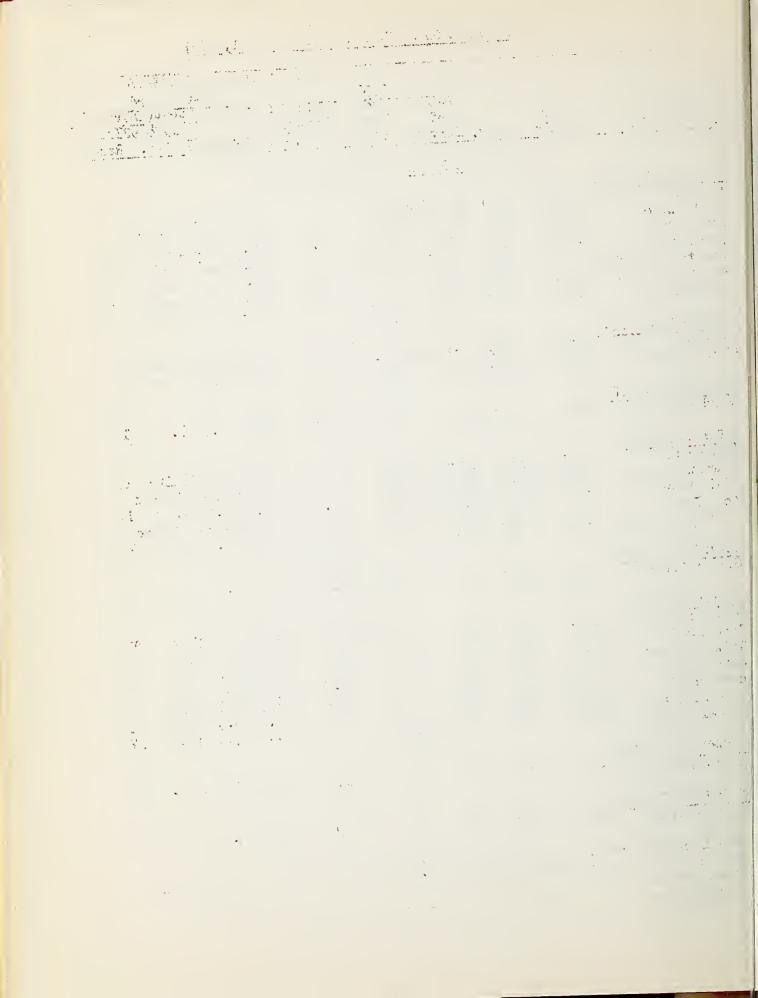
	2 OTT 2 /	~~~	a /a m	_~	~ ~ 0				
				14					
			2/28	4 8					
Stinking Water	18F4	4800	Not Surv						
ALVORD LAKE BASIN			- 1-0						
Disaster Peak	18H1	6500	2/28	22	8.4	22.6ª	5.7		8
MC DEDWING COURT									
	18117	6500	2/28	22	8 1.	20 48	ور س		0
Tragnet, Leak	TOUT	0500	2/20	22	0#4	22.0	5.1		0
Mill Creek Cox Flat *Quartz Mountain SILVER LAKE BASIN Silver Creek HARNEY BASIN *Blue Mtn. Springs Izee Summit Idlewild Camp Starr Ridge Lake Creek Rock Spring Stinking Water	20G4 20G11 20G6 21F12 18E16 19E9 18F3 19E7 18E18 18F1	6200 5750 5320 4900 5900 5293 5200 5156 5120 5100	2/22 Not Surv 3/1 3/1 2/27 2/28 3/1 2/28 2/27 3/1	12 ey ed 0 0 35 14 4 8 20 7	2.5 0.0 0.0 11.8 5.0 1.4 3.3 7.1 2.5	15.5 No Pr 11.2 8.7	5.1 eviou 6.1 3.3 10.4 7.1 4.2 4.9 9.4 5.3 3.8	7.4** as Recor 6.2** 3.6** 14.9 8.2 6.0 5.8 10.7**	17 d 18

^{*} Not located directly on this drainage area. **Average is for less than 15 years of record in the 1938-52 period but not

less than 5 years.

a Telegraphic.

b Partly estimated.



		SNOW COVER MEASUREMEN TS							
DRAINAGE BASIN	No.		Date	1957 Snow	Water :	Water	Past F		Previous
and	or	Tie	of	Depth	Content:	-	1	938-52	Yrs. of
SNOW COURSE	State	Elev.	Survey	(In.)	(In.) :	1950	1955	Avg.	Record
		<u>F</u> <u>E</u> <u>B</u>	R U A R	<u>Y</u> <u>1</u> , <u>1</u>	957				
OWYHEE RIVER									
Shumway Ranch	17F1	4500	2-8	15	4.7	No Pr	evious	Record	L
MALHEUR RIVER									
Shumway Ranch	17F1	4500	2-8	15	4.7			Record	
Clover Creek	17E2	4100	2-2	9	1.6	No Pr	evious	Record	
HOOD RIVER									
Greenpoint Res.	21D1	3400	1-24	32	4.3	22,3	-8.8	19.0**	9
UMPQUA RIVER									
Diamond Lake	22F18	5315	2-1	_	10.1	20.3	12.2	14.8	27
North Umpqua Trap Creek	22F16 22F17-	4215 3800	2 - 7 2 - 7	27 24	6.4 6.5	9.8ª	12.2 10.2	8.2** 10.3**	
RO GUE RIVER									
Seven Lakes#1	22G10	6800	2-7		29.2	50.9	29.8	21.2**	
Big Red Mountain Little Red Mtn.	22G21 22G22	6500 6500	2 - 10 2 - 10	37 27	11.2 8.2	25.4 29.6		18.1**	
Seven Lakes #2 Siskiyou Summit	22G11	6200 4630	2-7	60	20.9	31.8	22.7	18.7**	13
DISKLYOU SUMMIT	22G2O		2-3	23	5-4	5 _* 6	4.4	5.5	20
		FEB:	RUAR	<u>Y</u> 15,	1257				
DESCHUTES RIVER									
Cascade Summit Hogg Pass	22F3 21E6	4880 4755	2 - 15 2 - 15		15.8 24.5	32.7 41.5	17.8 25.2	· · · · · · · · · · · · · · · · · · ·	7 7
HOOD RIVER									
Tilly Jane	21D7	6000	2-16	53 .	20.4	48.6b	27.6		2
WILLAMETTE VALLEY	STREAMS								
CLACKAMAS RIVER Timothy Lake	21D18	3295	2-15	26	7.0	No Pr	evious	Record	

^{**}Average is for less than 15 years of record in the 1938-52 period but not less than 5 years.

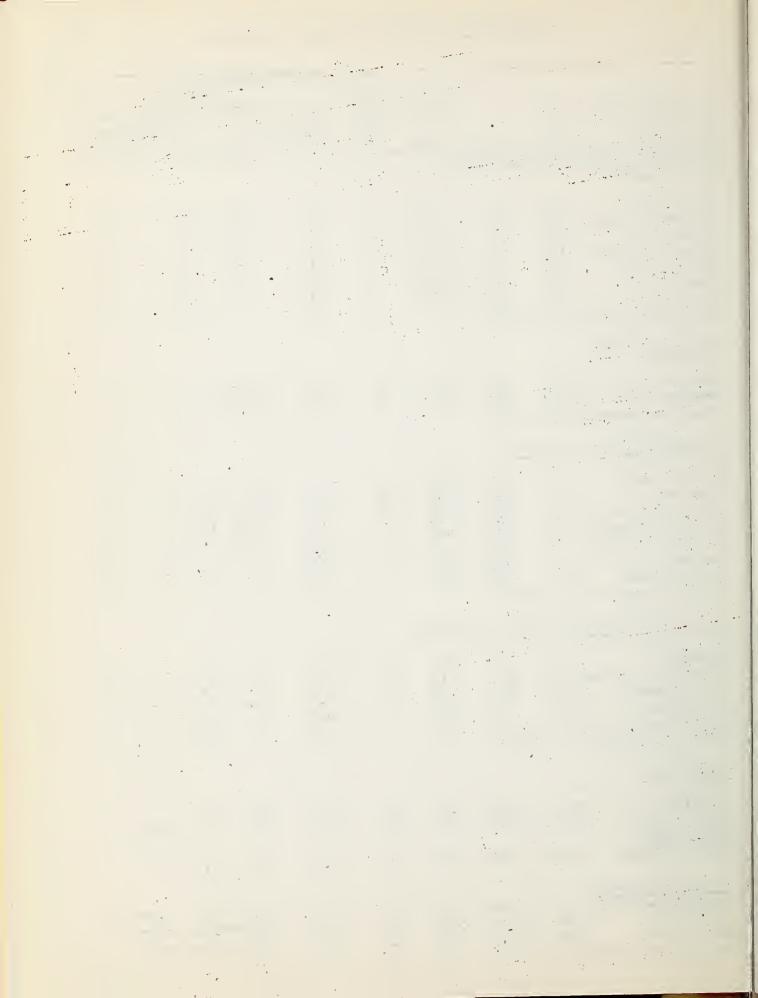
Telegraphic.

Partly estimated.

Relocated 1956.

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					COVER I	WEASUREM			
DRAINAGE BAGIN and SNOW COURSE	No. or State	Elev.	Date of Survey	Snow Depth (In.)	Water Contend	:Water	19		rs. of
WILLAMETTE VALLEY				(/					
SANTIAM RIVER									
Hogg Pass Santiam Junction Marion Forks Whitewater Bridge Detroit Town Detroit Dam Mill City Snow Line: Approxim	22E1 22E2 22E3	1580 826	2-15 2-15 2-15 2-15 2-15 2-15 2-15	71 36 27 13 0 0	24.5 12.8 9.9 3.7 0.0 0.0	41.5 22.5 12.8 4.3 1.0 T	25.2 17.3 10.0 4.2 0.0 0.0		7 7 7 6 7 6 5
MC KENZIE RIVER									
Hogg Pass Santiam Junction Snow Line: Approxim		4755 3990 6001	2 - 15 2 - 15	71 36	24.5 12.8	41.5 22.5	25.2 17.3		7 7
MIDDLE FORK WILLA	METTE RI	VER							
Cascade Summit Champion Salt Creek Falls Railroad Overpass McCredie Springs Oakridge Meridian Dam Snow Line:Approxim	22F6 22F7 22F8	4880 4500 4000 2750 2120 1310 750	2-15 2-14 2-15 2-15 2-15 2-15 2-15	45 38 20 9 0 0	15.8 12.0 6.6 3.0 0.0 0.0	32.7 19.7 16.0 1.2 0.2 T	17.8 21.5 11.6 4.8 0.0 0.0		7 8 8 8 8 7 7
COAST FORK WILLAM	ETTE RIV	ER (Row	River)						
Champion Golden Curry Creek Weaver Creek Lund Park Layng Creek R.S. Snow Line: Approximately	22F11 22F12 22F13	4500 3500 2440 1740 1200	2-14 2-14 2-14 2-14 2-14	38 19 0 0	12.0 6.0 0.0 0.0 0.0	19.7 2.6 0.2 T	21.5 6.0 1.3 0.0 0.0		8 7 6 7 7
UMPQUA RIVER									
Champion Diamond Lake ROGUE RIVER	22F9 22F18	4500 5315	2 - 14 2 - 15	38 32	12.0 11.8	19.7 21.4	21.5	22.8**	8 16
Siskiyou Summit	22G2O	4630	2-17	11	4.5	5.4	4.9		7
KLAMATH LAKE BASI Quartz Mtn. (COPCO Quartz Mtn. Bly Mountain Lake of the Woods	7 9 20G6 21G5	5504 5320 5090 4960	2-15 2-15 2-15 2-14	8 8 10 18	2.6 3.0 2.6 4.5		evious	6.3** Record Record	24



		reamflow in Thou 956 - Feb. 1957	Feb. 195	7
BASIN, RIVER AND STATION	Total	As percent of 1938-52 Average		percent 1938-52 erage
UPPER COLUMBIA DRAINAGE (Lower Snake in Oregon)				
Owyhee Res. net inflow	243.1	158	162.8	232
LOWER COLUMBIA DRAINACE				
Umatilla R. nr. Umatilla John Day R. at Service Cr. Deschutes R. at Moody Hood R. and conduit nr. Hood R. Willamette R. at Salem ^b Willamette R. at Albany ^b M.F. Willamette R. below North Fk.	109.6 267.6 1760.0 295.3 7964.0 5258.0 1012.0	73 76 104 78 77 84 99	46.8 128.3 377.7 62.8 2380.0 1675.0 284.4	86 98 93 68 88 101
OREGON AND CALIFORNIA COAST DRAINAG	E			
Umpqua R. nr. Elkton Rogue R. at Raygold Upper Klamath Lake net inflow	2919.0 1146.0 760.6	86 111 140	965.3 319.9 178.5	99 111 143

b Streamflow adjusted for storage in those of the following reservoirs which are above the station: Lookout Point, Detroit, Fern Ridge, Cottage Grove and Dorena.

Preliminary data supplied by: U. S. Geological Survey, Current Records Center, Portland, Oregon; The California Oregon Power Co., Medford, Oregon; and North and South Boards of Control, Owyhee Project, Nyssa, Oregon.

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DRAINAGE DIVISION	SeptOc	FALL tNov.1956 Departure ^D	DecJan Observed	DecJanFeb.1956-157 Observed Departureb				
Southeastern	3.41	+0.57	3.54	-0.44				
Blue Mountains	3.68	-1.69	6.00	-1.27				
Wallowa Mountains	4.04	-1.88	5.93	-0.66				
Lower Columbia	2.65	-2.58	5.49	-1.83				
Upper Deschutes	2.62	-1.29	3.52	-2.03				
Willamette Valley	12.21	-4.24	17.87	-4.71				
Southwestern	6.90	-0.45	9.14	-2.82				
South Central	3.76	+0.12	4.16	-1.18				
Southeastern	-Owyhee a	nd lower Malh	eur drainages.					
Blue Mountains	-Upper valleys of the Umatilla, John Day and Malheur, and the Powder, Burnt and Silvies drainages.							
Wallowa Mountains	-Imnaha, Wallowa and Catherine drainages.							
Lower Columbia	-Lower valleys of the Walla Walla, Umatilla, John Day and Deschutes, and the Hood and Sandy drainages.							
Upper Deschutes	-Upper Deschutes and Crooked drainages.							
Willamette Valley	-All Willamette drainages.							
Southwestern	-Umpqua,	Rogue and Wil	liamson draina	iges.				
South-Central	-Sprague, Lost and Interior Basin drainages.							

Note- Precipitation shown in inches.

a - Preliminary analysis by U. S. Weather Bureau.

b - Departure from 15 year (1938-52) drainage division average.

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The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys

Nevada Cooperative Snow Surveys

Oregon Agricultural Experiment Station

Oregon State Engineer and corps of State Watermasters

Oregon State Highway Engineers

Soil Conservation Districts of Oregon

FEDERAL

Department of Agriculture

Cooperative Extension Service

Forest Service

Soil Conservation Service

Department of Commerce

Weather Bureau

Department of the Interior

Bonneville Power Administration

Bureau of Reclamation

Fish and Wildlife Service

Geological Survey

Indian Service

National Park Service

Department of National Defense

Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company

Pacific Power and Light Company

Portland General Electric Company

The California Oregon Power Company

MUNICIPALITIES

City of Baker

City of La Grande

City of The Dalles

City of Walla Walla

IRRIGATION DISTRICTS

Associated Ditch Companies

Central Oregon Irrigation District

Deschutes County Municipal Improvement District

East Fork Irrigation District

Grants Pass Irrigation District

Jordan Valley Irrigation District

Lakeview Water Users, Incorporated

Medford Irrigation District

North Board of Control - Owyhee Project

North Unit Irrigation District

Ochoco Irrigation District

Rogue River Irrigation District

South Board of Control - Owyhee Project

Talent Irrigation District

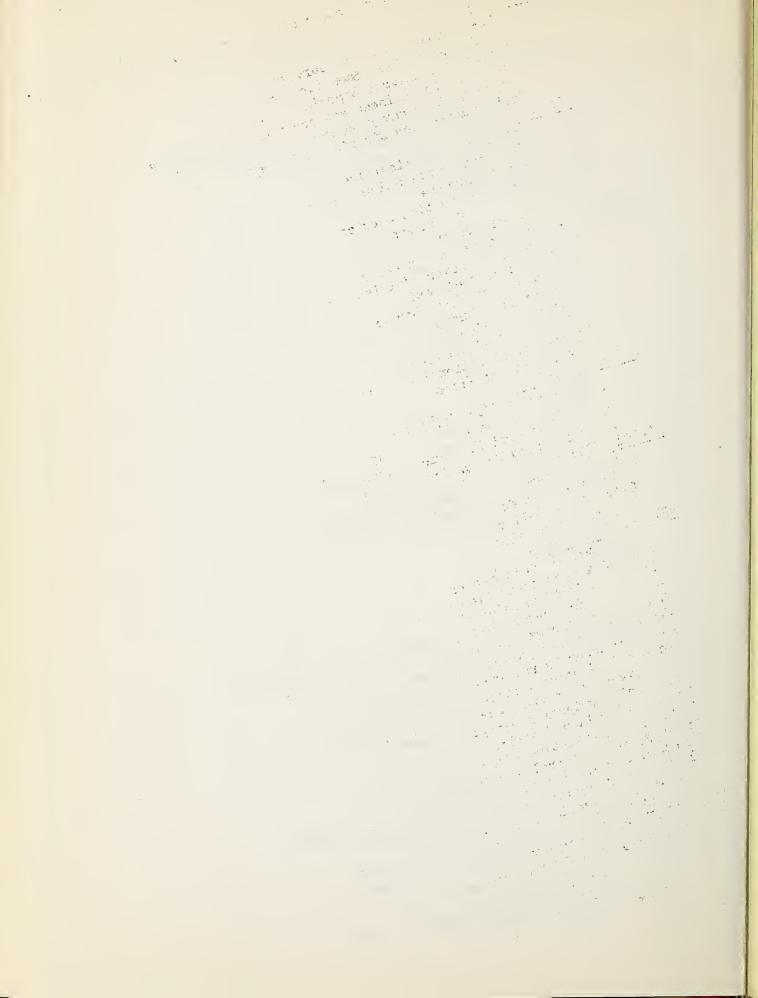
Vale-Oregon Irrigation District

Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company

The Crag Rats, Hood River, Oregon





Federal - State - Private COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"